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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,465	08/14/2001	Jeff Kirsner	HALB:020	9062

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EXAMINER
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TUCKER, PHILIP C

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 09/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/929,465

Applicant(s)

KIRSNER ET AL.

Examiner

Philip C. Tucker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.  
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 4 is/are allowed.  
6) ☒ Claim(s) 1, 6-11, 16, 19, 20, 27, 30, 31, 33-35, 38-41, 43, 45-47, 50, 51, 53-56, 58 and 81-85 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

Continuation of Disposition of Claims: Claims pending in the application are 1,4,6-11,16,19,20,27,30,31,33-35,38-41,43,45-47,50,51,53-56,58 and 81-85.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 50, 51, 53, 54, 58 and 85 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 95/26386.

WO teaches an invert emulsion drilling fluid which comprises a triglyceride ester oil in admixture with another ester, wherein the triglyceride ester and ester are within the scope of the present invention (see page 4, lines 8-15, page 4, line 29 – page 5, line 9 and Table 3). WO teaches on page 4, from line 29 onward that the diluent, which is the other ester is added to the oil phase to reduce the viscosity, from which one of ordinary skill in the art would instantly envision adding the ester to the triglyceride ester oils prior to forming the emulsion. Applicants method of preparing the drilling fluid does not

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specifically include the method of making the ester, and thus the method of making the ester does not distinguish in claim 58.

3. Claims 1, 6-9, 16, 19, 20, 27, 30, 31, 33, 38, 40, 41, 43 and 81-84 are rejected under 35 U.S.C. 102(e) as being anticipated by Patel (US 2001/0009890 A1).

Patel teaches an invert emulsion drilling fluid which comprises esters and a C16-C18 isomerized internal olefin (see the examples). Patel further teaches the combination of various esters and hydrocarbons, such as mineral oils (see claims 1 and 9). Such mineral oils would comprise paraffins according to the present invention. Patel specifically teaches such as Example 3, the combining of the esters and olefin prior to making the emulsion. Furthermore, the general comments in paragraph [0040] that the ingredients of the fluid may be mixed in any order, would cause instant envisioning of the combining of the oil phases to one of ordinary skill in the art. Combinations of glycerides of fatty acids and esters are taught at paragraph [0018]. Applicants method of preparing the drilling fluid does not specifically include the method of making the ester, and thus the method of making the ester does not distinguish in the claims. The esters disclosed by Patel are within the scope of those of the present claims.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 10, 11, 23, 38-41, 45-47, 56, 81, 82 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel (US 2001/0009890 A1) in view of Mueller (6165946) and Rines H935.

Patel teaches an invert emulsion drilling fluid which comprises esters and a C16-C18 isomerized internal olefin (see the examples). Patel further teaches the combination of various esters and hydrocarbons, such as mineral oils (see claims 1 and 9). Such mineral oils would comprise paraffins according to the present invention. Combinations of glycerides of fatty acids and esters are taught at paragraph [0018]. Patel specifically teaches such as Example 3, the combining of the esters and olefin prior to making the emulsion. Furthermore, the general comments in paragraph [0040] that the ingredients of the fluid may be mixed in any order, would cause instant envisioning of the combining of the oil phases to one of ordinary skill in the art. Patel differs from the present invention in that the use of 2-ethylhexanol in the formation of the esters is not disclosed, and the specific composition of the mineral oil is not disclosed. The use of 2-ethylhexanol would be obvious to one of ordinary skill in the art, given the teaching of Patel that alcohols of C1-12 length may be used in the formation of the esters (claim 1), particularly in view of the teaching of Mueller that esters made from 2-ethylhexanol may be used in invert emulsion drilling fluids (see first Table in column 22). The use of low aromatic mineral oils as the continuous phase of an invert emulsion drilling fluid is taught by Rines (column 4, line 45-58 shows less than 0.5 wt% aromatic),

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which improves environmental compatibility. Thus the use of a low aromatic mineral oil in the invert emulsion of Patel, such as that taught by Rines, comprising paraffins and/or olefins of low carbon chain length in order to protect the environment would be an obvious variation to one of ordinary skill in the art, particularly in view of the teaching of a low toxicity mineral oil by Patel [0069]. Applicants method of preparing the drilling fluid does not specifically include the method of making the ester, and thus the method of making the ester does not distinguish in the claims. The esters disclosed by Patel are within the scope of those of the present claims.

6. Claims 27, 30, 31, 33-35 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (5569642) in view of Mueller (6165946).

Lin teaches the use of a mixture of linear and branched paraffins for use as the continuous phase of a drilling fluid. Lin teaches that the paraffin mixture may be used in combination with an ester in order to improve the performance of the fluid or lower costs (column 3, lines 39-43). Lin differs from the present invention in not disclosing an example of such esters. Mueller teaches the use of ester oils as the continuous phase of a drilling fluid, which comprises esters of 2-ethylhexanol (column 22). It would be obvious to one of ordinary skill in the art to use known drilling fluid ester formulations, such as that of Mueller, in the drilling fluid of Lin, given the teaching of Lin that esters may be used therein in order to improve drilling performance, or lower cost. Lin further differs from the present invention in not teaching the blending of the ester and paraffin prior to the forming of the drilling fluid emulsion. Case law has held that the order of

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mixing ingredients is not patentable absent a showing of criticality (in re Hampel 74 USPQ 171). It would thus be obvious to one of ordinary skill in the art to combine the ester and paraffins prior to forming the emulsion.

7. Claims 50, 54, 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 95/26386.

WO teaches an invert emulsion drilling fluid which comprises a triglyceride ester oil in admixture with another ester, wherein the triglyceride ester and ester are within the scope of the present invention (see page 4, lines 8-15, page 4, line 29 – page 5, line 9 and Table 3). WO teaches on page 4, from line 29 onward that the diluent, which is the other ester is added to the oil phase to reduce the viscosity, from which one of ordinary skill in the art would instantly envision adding the ester to the triglyceride ester oils prior to forming the emulsion. WO differs from the present invention in that the use of an ester having an acid portion of the carbon atoms of claims 55 and 56 is not disclosed. WO however at page 5 teaches the use general use of esters of a fatty acid and 2-ethylhexanol, and exemplifies a C1 and C18 fatty acid. It would thus be obvious to one of ordinary skill in the art to utilize various esters having acid portions within the range of C1 to C18, given the general teaching of the WO reference. Furthermore, homologues with such similar structures would be expected to have similar utility and properties..

8. Claim 4 is allowable over the art of record.



9. Applicants arguments and amendments have been considered but are not deemed persuasive. Applicants Terminal Disclaimer has overcome the rejection under obviousness double patenting. With respect to the rejections under 35 USC 102, the change from a product to a method claim does not overcome the prior art as noted in the rejections above. With respect to the 35 USC 103 rejection over Patel, applicant has argued that hindsight has been used. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The use of low aromatic mineral oils in drilling fluid to protect the environment has been a well established practice in the art. Thus the use of a low aromatic mineral oil in the invert emulsion of Patel, such as that taught by Rines, comprising paraffins and/or olefins of low carbon chain length in order to protect the environment would be an obvious variation to one of ordinary skill in the art, particularly in view of the teaching of a low toxicity mineral oil by Patel [0069]. One of ordinary skill in the art would clearly look to the teachings of the prior art, such as Mueller, of invert emulsion drilling fluids to determine the scope of the esters which may be used in the drilling fluid of Patel.

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Applicant has also argued the validity of the rejection of Lin in view of Mueller. Lin clearly provides motivation to use esters, given the teaching of Lin that esters may be used therein in order to improve drilling performance, or lower cost. One of ordinary skill in the art would clearly look to the teachings of the prior art of invert emulsion drilling fluids to determine the scope of the esters which may be used in the drilling fluid of Lin. One of ordinary skill in the art does not operate in a vacuum devoid of the prior art teachings. Lin clearly provides motivation, such as improved drilling performance to look to the prior art to seek esters for such improvement. The rejections are thus maintained.


10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C. Tucker whose telephone number is 571-272-1095. The examiner can normally be reached on Monday - Friday, Flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Philip C Tucker  
Primary Examiner  
Art Unit 1712

PCT-3861